

## WORLD INTELLECTUAL PROPERTY ORGANIZATION



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5: A61N 1/368, A61B 5/04

A1

(11) International Publication Number:

**WO 93/02746** 

(43) International Publication Date:

18 February 1993 (18.02.93)

(21) International Application Number:

PCT/US92/04648

(22) International Filing Date:

4 June 1992 (04.06.92)

(30) Priority data:

737,947

30 July 1991 (30.07.91)

US

(71) Applicant: MEDTRONIC, INC. [US/US]; 7000 Central Avenue, N.E., Minneapolis, MN 55432 (US).

(72) Inventor: OLSON, Walter, H.; 16 Hay Camp Road, North Oaks, MN 55127 (US).

(74) Agent: DUTHLER, Reed, A.; Medtronic, Inc., 7000 Central Avenue, N.E., Minneapolis, MN 55432 (US).

(81) Designated States: AU, CA, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE).

**Published** 

With international search report.

(54) Title: METHOD AND APPARATUS FOR TACHYARRHYTHMIA DETECTION AND TREATMENT

(57) Abstract

An implantable cardioverter capable of delivering pacing and cardioversion level therapies. The device distinguishes between stable and unstable ventricular tachyarrhythmias by monitoring the progression of atrial cycle lengths during the detected ventricular tachyrrhythmia. A detected increase in atrial cycle lengths during the early stages of the detected ventricular tachycardia is taken as an indication of hemodynamically unstable ventricular tachycardia (122).

